

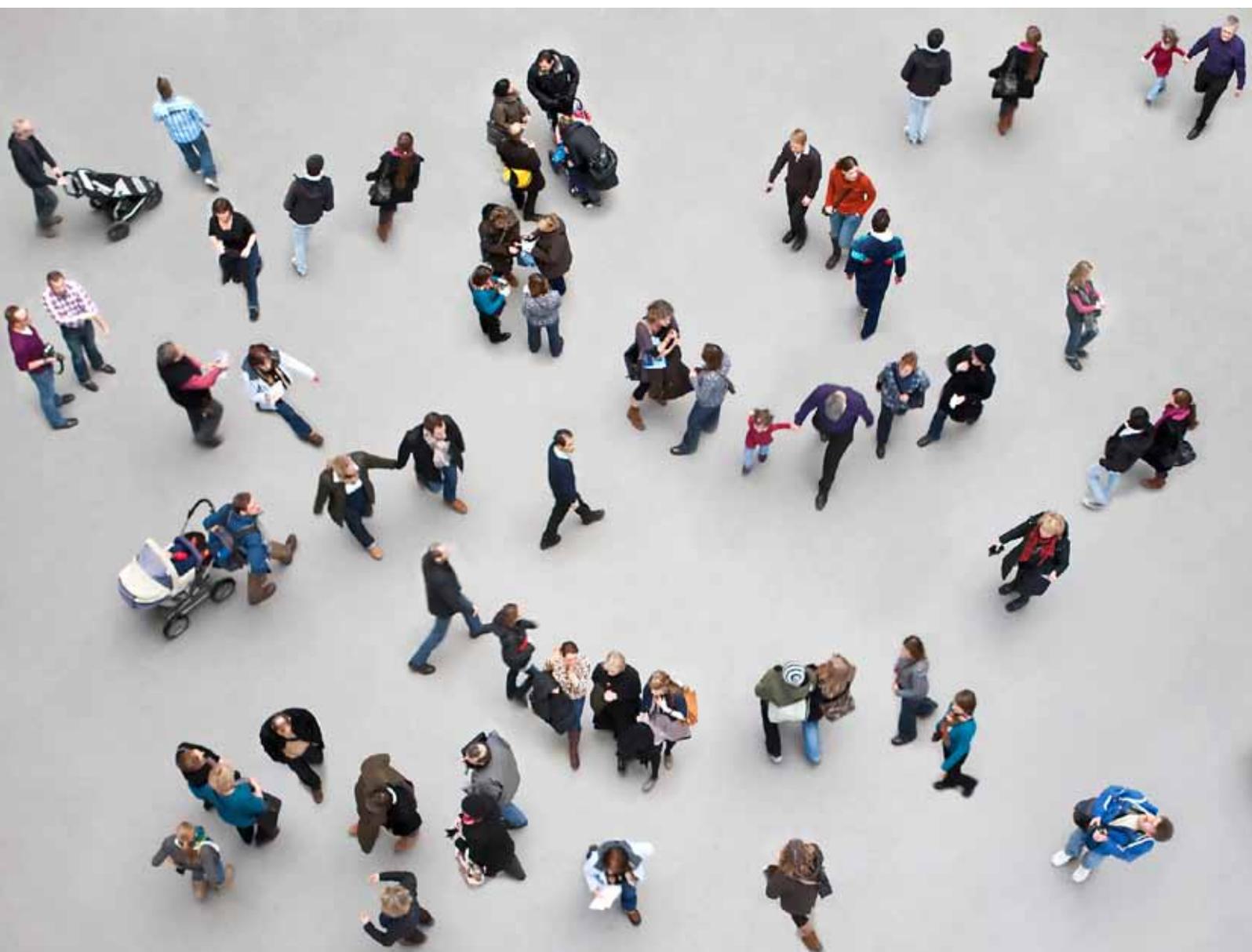


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PROSPERITY
The High-Tech Strategy for Germany

Research for Civil Security

Social Dimensions of Security Research



HIGH-TECH STRATEGY

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Research for Civil Security – Social Dimensions

Critical items of infrastructure such as airports and train stations are very vulnerable here in Germany. Well-developed networks for transport, utilities and communications guarantee citizens a high degree of mobility and excellent quality of life. But what would happen if the busy lifelines of our society were suddenly cut off? By a hurricane or earthquake, by a technical accident or sabotage, by organised crime or terrorist attacks?

From 2007 to the start of 2012, the Federal Government has been supporting the development of innovative technologies in order to protect the population against such occurrences in an effective manner as part of its “High-Tech strategy for Germany”. Over 278 million euros have been made available for this “Research for Civil Security” programme until the beginning of 2012. The aims of these projects are the early detection of threats to the population and the environment, the prevention of risks, and the limitation of possible consequences.

The potential offered by civil security technology is considerable. Intelligent sensors could monitor the stability of bridges and tunnels after an earthquake, while innovative bioradar systems can locate persons buried under rubble. Infrared cameras can detect traces of explosives on abandoned items of luggage, and electronic evacuation assistance systems can help to quickly evacuate football stadiums in emergencies.

However, this modern technology also raises questions that cannot be answered by developers and engineers alone. What is the public’s reaction to this new technology? Do the benefits justify the possible side effects on society? And how can misuse be prevented?

The lively public debates on the issues of data retention and full-body scanners at airports have shown that public acceptance tends to decrease once people’s privacy is affected. For this reason, technical feasibility is no guarantee of effective protection for citizens. “Security is a very complex phenomenon. It always has

a personal component too,” emphasises Peter Zoche of the Fraunhofer Institute for Systems and Innovation Research in Karlsruhe. Input from the social sciences and humanities is thus also necessary in the development of civil security technology if a balance is to be found between the need for security and the preservation of personal freedom.

The social dimensions of research on civil security are varied. The issues involved here include values and norms, individual perceptions and opinions, and legal, sociological and economic concerns. This can be illustrated particularly well by taking the example of a catastrophe scenario that security experts have to consider, such as a fire in a tunnel in an underground railway station caused by a technical fault or an attack.

The overall situation will be confusing and unclear for victims and rescue workers, access is limited, and escape routes may also be blocked to a certain extent. To make it possible to implement efficient rescue efforts despite these challenges, researchers working on the OrGaMIR joint project (Cross-organisational hazard prevention to protect human life and critical infrastructures by optimised prevention and reaction) have developed an electronic evacuation assistance system. A computer models the dispersion of toxic fumes in the tunnel based on sensor data supplied by network-connected fire detectors, gas sensors and wind gauges that are installed locally. The intelligent IT system uses guidance lighting and public address announcements to guide people to the safest route out of the station.

Much of this is already technically feasible today. But who will pay for increased security in tunnels? Who is liable if the escape routes planning programme guides people into a cul-de-sac? In order to clarify these delicate issues at an early stage, experts from the social sciences and humanities were involved right from the beginning of the “Research for Civil Security” programme. Their contribution is to shape the process of technological development in such a way that it will



deliver solutions that are justifiable from a legal, social and ethical viewpoint.

An example here is the issue of full-body scanners at airports. Passengers pass through a tunnel where they are scanned by millimetre waves that can penetrate clothing, but not the skin. The reflected waves form a spatial image that can reveal hidden weapons and parcels of explosives, but also shows anatomical features – which is the reason that not everyone is comfortable with this technology. What are the requirements for the next generation of full-body scanners if these machines are to be accepted by passengers and airport security staff?

The aim is to use terahertz radiation to detect and, at the same time, to classify hidden objects attached to the body. In order to support the development of terahertz scanners for the detection of weapons and explosives, the BMBF has been funding five technology cooperation projects in recent years that are developing full-body scanners and detectors for hazardous liquids. In parallel, ethical guidelines for the use of terahertz technology have been developed as part of the THEBEN (Terahertz detection systems: Ethical support, evaluation and standardization) research project.

The main recommendations of project coordinator Dr. Regina Ammicht Quinn, professor at the International Centre for Ethics in the Sciences and Humanities at the University of Tübingen (IZEW), are clear and revealing: In order to ensure that data protection is maintained, the images recorded must be anonymous and must be deleted immediately once the passenger has passed the scanner tunnel. To respect people's dignity and protect their privacy, the images must also be abstract enough to ensure that body features are not visible.

However, even if all manufacturers of this equipment adhere to these rules, people with hidden disabilities could still find it unpleasant to pass through this security tunnel. It is likely that the next generation of full-body

scanners will still signal a false alarm in the case of breast prostheses or devices such as colostomy bags. The passengers involved would then have to be subjected to further checks, which could give them the impression that they were being discriminated against in public. To prevent this, Regina Ammicht Quinn recommends that everyone should be free to choose whether they prefer to be checked by a human or scanned by a machine. This would mean that airport operators would still have to provide checks that do not involve full-body scanners. The implication for airports is that passengers are sceptical with regard to solutions that are based on technology alone.

This example illustrates the valuable contributions that can be made by the social scientists and humanities specialists who are involved in the projects. Their function is to guide projects in a direction that will ensure that new security solutions are used in a responsible, societally justifiable manner and that they take into account the needs of all parties involved.

To ensure that new technological solutions, that are not suitable for use in our society, are flagged as such at an early stage, social scientists and humanities experts aim to understand precisely how security is perceived on an individual basis. They also aim to identify the factors that influence the collective security perception of a society as a whole. The findings in this regard that have been achieved so far are fragmented, but they do indicate that it is worthwhile to study these issues. The reasons for this are that factors such as personal experience, social status and the regional environment strongly affect, how safe people feel in a certain situation or environment, on the one hand, and that there is large discrepancy between perceived safety and the actual threat, on the other hand.

The risk of terrorist attacks is an example here. The perceived threat in Europe has increased since the bombings in public transport services in Madrid and London. However, the number of terrorist attacks has



actually been falling for years now according to Europol statistics. Even after the awful events in Oslo, the risk of falling victim to a fatal attack in Europe is still low – but the public perception is quite different. The terrorist group uncovered in the Sauerland region in Germany, the suitcase-bombers in Cologne, the terrorists on a flight to Detroit – people’s fear gradually increases with every foiled attack. Increased surveillance is having little effect in this regard, and cameras in underground stations can even serve to increase people’s sense of unease. Putting in place increased monitoring can actually result in more fear. Even back in his days, Benjamin Franklin warned: “They who can give up essential liberty to obtain a little temporary safety, deserve neither liberty nor safety.”

For this reason, modern security technology must always be used in a cautious manner, taking into account all conceivable consequences for social interactions. The main foundations for these considerations are being developed by the projects that are part of the BMBF’s “Social Dimensions of Security Research” funding initiative. Up to now, a total of 15.5 million euros have been made available for interdisciplinary research projects, and a further 14 million euros are planned. The topics dealt with by these projects can be divided into the areas of security architecture, security organisation, security culture, security economics and security technology. The aim is to network all the important stakeholders and to build bridges between various disciplines in order to open up new approaches. After all, a holistic perspective on the complex interactions between security solutions and society can only be achieved by looking outside of one’s own specialist area.

Communication has a key role to play here. For example, one of the proposed causes of the disaster that occurred on 24 July 2010 at the Love Parade in Duisburg was that those in positions of responsibility had difficulties communicating with each other. Given that the police, fire brigade, paramedics and private security services have different organisational structures, it is

important that misunderstandings are prevented so that interaction between these groups can operate as efficiently as possible. The Federal Government’s security research initiative has already achieved a lot in this area. Experts and stakeholders are now involved in networks: The police and rescue teams are engaged in lively dialogue with engineers, scientists, and specialists from the social sciences and humanities. The prerequisites are thus in place that will allow for civil security research with a sense of balance and proportion.



Security, perceptions, reports, conditions and expectations – monitoring security in Germany (BaSiD)

Motivation

What do we need to feel safe? Each individual's perception of security is highly dependent on personal experiences and external influences. So far, only isolated scientific findings about the relationship between personal sense of security and various threat assessments have been available. However, systematic knowledge about this subject is essential for developing and implementing preventive measures and efficient security concepts that will gain the widest possible level of acceptance in society.

Goals and strategies

The BaSiD project addresses this issue by examining social, regional, media-related and technical influences on security perception. Threats like crime, terrorism, natural disasters and major technical accidents are considered. For the first time, interview data from incidents are compiled for this purpose, and individual security assessments are surveyed, taking into account social and regional conditions. This is complemented by a content analysis of current media reports about social hazard perceptions and security expectations.

Innovations and perspectives

A handbook titled "Barometer of Security in Germany" supplies politicians, technology developers, service providers, institutions responsible for security, and the public with key data for understanding perceptions of (in)security: The security barometer is intended not only to give an overview of the current sense of security in Germany, but also allow a comprehensive evaluation of current and future trends regarding the effectiveness of measures aimed at increasing security.



People have different perceptions of security
(source: © iStockphoto.com/tatsi)

Announcement

Social Dimensions of Security Research

Project title

Security, perceptions, conditions and expectations –
Monitoring Security in Germany (BaSiD)

Duration

06/2010 - 05/2013

Project partners

- Max Planck Institute for Foreign and International Criminal Law, Freiburg
- Bundeskriminalamt, Division KT Forensic Science Institute, Wiesbaden
- Albert-Ludwigs-Universität Freiburg im Breisgau, Institute of Sociology
- Fraunhofer Institute for Systems and Innovation Research (ISI), Karlsruhe
- International Centre for Ethics in the Sciences and Humanities (IZEW), Tübingen
- Christian-Albert-Universität zu Kiel, Katastrophenforschungsstelle
- Heinrich-Heine University Düsseldorf, Department of Communication and Media Studies

Project coordinator

Prof. Dr. Dr. h. c. Hans-Jörg Albrecht
Max Planck Institute for Criminal Law
Günterstalstr. 73, 79100 Freiburg i. Breisgau
Phone: +49 761708-1204, h.j.albrecht@mpicc.de



Dynamic arrangements in urban security culture (DynASS)

Motivation

Life in cities is shaped by diverse impressions and sensations. Security perception is influenced by personal experiences as well as current external factors such as noise levels, the illumination of streets, squares and underpasses, and other architectural circumstances.

Goals and strategies

The aim of the DynASS Project is to identify the factors that affect the security perceptions of urban dwellers, and provide municipal authorities with guidelines for measures that increase the feeling of security. The first step towards achieving this goal is an examination of the security perceptions of city inhabitants and the measures implemented at the municipal level to increase security. Scientific studies, media reports and expert interviews will be analysed for this purpose. A written survey of regulatory agencies and municipal planning authorities in all German cities with a population of more than 50,000 will reveal how municipal authorities see inhabitants' security, which measures are employed to increase security, and at which locations the sense of security changes from "safe" to "unsafe" or vice versa over particular periods of time.

Innovations and perspectives

The project's findings will be categorized in order to formulate innovative approaches to municipal security policy, taking into account the scope for action in different municipalities. The results will be available to municipal authorities in the form of guidelines.



Logo of joint project DynASS (source: © Department of Urban and Regional Planning at the Technical University Berlin)

Announcement

Social Dimensions of Security Research

Project title

Dynamic arrangements in urban security culture (DynASS)

Duration

08/2010 - 01/2013

Project partners

- Technical University Berlin, Department of Urban and Regional Planning; Institute of Fluid Dynamics and Technical Acoustics (ISTA); Centre for Technology and Society
- inter 3 Institute for Resource Management, Berlin
- Berlin School of Economics and Law (HWR), Department of Police and Security Management
- German Institute of Urban Affairs (DifU), Berlin

Project coordinator

Prof. Dr. Dietrich Henckel
Technical University Berlin
Department of Urban and Regional Planning
Hardenbergstr. 40a
10623 Berlin
Phone: +49 30 3142-8090
d.henckel@isr.tu-berlin.de



System trust and crisis management: An interactive expert exchange for strengthening societal resilience (ESR)

Motivation

A well-prepared, resilient society is able to mitigate not only the direct impact but also the long-term effects of major incidents, and deal with crises much faster. Crisis resilience – the populace's ability to overcome crisis situations – describes how societies deal with hazards and emergencies. Improving resilience and response to disasters requires a high level of cooperation between all participants as well as communication within society.

Goals and strategies

The aim of this project is to describe the resilience of German and Israeli society, and bring about an exchange between experts from all involved stakeholders. The networking of these experts and the exchange of experiences between them will be realized via a specialised system on an information platform. Investigations will be conducted in Germany and Israel to determine and evaluate crisis resilience. Experiences gathered in Germany and Israel will serve as a basis for learning and implementing suitable measures to improve resilience in each case.

Innovations and perspectives

In the course of the project, a specialised system will be developed to enable the effective exchange of information between the groups of participants and experts involved. The project is aimed at creating a sustainable concept for the information platform and carrying out basic research on resilience. Data security will be addressed appropriately in this process.



The project's aim is an exchange of information between Germany and Israel on managing crisis situations (source: Fraunhofer IITB)

Announcement

Cooperation between Germany and Israel in civil security research

Project title

System trust and crisis management: An interactive expert exchange for strengthening societal resilience (ESR)

Duration

03/2010 - 02/2011

Project partners

- nexus Institute for Cooperation Management and Interdisciplinary Research

Partner in Israel

- Interdisciplinary Centre for Technology Analysis and Forecasting (ICTAF), University of Tel Aviv

Project coordinator

Dr. Hans-Liudger Diemel
nexus Institute for Cooperation Management and Interdisciplinary Research
Otto-Suhr-Allee 59, 10585 Berlin
Phone: +49 30 3180-5463, diemel@nexusinstitut.de

Contact

Christoph Henseler
Phone: +49 30 3180-5485, henseler@nexusinstitut.de



Risks associated with major public events – Planning, assessment, EVAcuation and rescue concepts (EVA)

Motivation

Major public events like concerts and football games attract an increasing number of visitors who want to share an experience. Accordingly, large groups of people come together in confined spaces at such events. An absence of information about the number of visitors and their potential behaviour makes it nearly impossible to calculate the requirements for emergency services needed in order to successfully prepare such events.

Goals and strategies

Sound principles for the planning of emergency services are a prerequisite for safeguarding people at major public events. For this purpose, relevant parameters must be determined, analysed, and then fed into risk assessment and simulation tools. Social-scientific analyses examine the individual behaviour of visitors, organizers and volunteers at major public events, as well as the communication taking place between these participants. This enables simulation of flows of people in which each individual possesses certain social characteristics, thereby raising the validity of the simulation results. The goal is to develop a set of influencing factors for major public events and use it as a basis for an interdisciplinary improvement of security concepts.

Innovations and perspectives

The crisis management concepts developed in the project are intended to support timely initiation of rescue and evacuation measures. This includes integration of different technical equipment as well as diverse forms of information and communication. Finally, new training concepts for emergency personnel are to be prepared.



Flows of people at major events (source: Feuerwehr Dortmund)

Announcement

Rescue and Protection of People

Project title

Risks associated with major public events – Planning, assessment, EVAcuation and rescue concepts (EVA)

Duration

03/2009 - 02/2012

Project partners

- German Fire Protection Association (GFPA) Lippetal
- University of Paderborn, Computer Application and Integration in Design and Planning (C.I.K)
- Fraunhofer Institute for Chemical Technology ICT, Pfinztal
- Institut für Feuerwehr- und Rettungstechnologie der Stadt Dortmund
- I.S.T. Integrierte Sicherheits-Technik GmbH, Frankfurt
- Katastrophenforschungsstelle (KFS) der Universität Kiel
- VdS Schadenverhütung GmbH Cologne
- W & H Sport Sportgerätebau GmbH, Aalen-Waldhausen

Project coordinator

Dr. Dirk Oberhagemann, vfdb e.V. / Referat 13
Auf dem Büld 23, 59510 Lippetal
Phone: +49 2923 65191, +49 15771908346
info@vfdb.de



Research forum on public safety and security (Research Forum)

Motivation

Because general conditions for public security have been changed dramatically in the past 20 years by influences such as acts of terrorism, transnational organized crime, as well as technical and economic dependency, a review of events and their implications, as well as stocktaking of existing security-related knowledge, are becoming increasingly urgent.

Goals and strategies

Essential goals of the research forum are to consolidate the results of previous work in various disciplines and identify research topics regarding public security that will be relevant in the future. A Green Paper titled "Risks and Challenges for Public Security in Germany" uses two key scenarios to analyse the impact of power outages lasting several days and a pandemic crisis situation.

Innovations and perspectives

The project's results will serve as a basis for preparing risk analyses and improving risk and crisis communication. In addition, fields of activity for modern civil protection are to emerge from a synthesis of public security activities. The aim is to further optimise public awareness and crisis management strategies. Knowledge of causes, patterns and consequences of crises is crucial here. Ultimately, recommendations for policy makers, the security industry and organizations, will be derived from the project results. So far, two workshops in the field of security research, crisis communication and critical infrastructure have been implemented, and a series of publications issued.



Research into causes, patterns and consequences of crises is an important aspect of prevention
(source: ©iStockphoto.com/studiovision)

Announcement

Social Dimensions of Security Research

Project title

Research forum on public safety and security (Research Forum)

Duration

10/2009 - 09/2012

Project partner

- Freie Universität Berlin, Department of Mathematics and Computer Science

Project coordinator

Prof. Dr.-Ing. Jochen Schiller
Freie Universität Berlin Department of Mathematics and Computer Science
Takustr. 9, 14195 Berlin
Phone: +49 30 8387-3140
jochen.schiller@fu-berlin.de

Project coordinator

Marie-Luise Beck, Dr. Lars Gerhold
Research Forum on Public Safety and Security (Research Forum)
Freie Universität Berlin
Fabeckstraße 15, 14195 Berlin
Phone: +49 30 838-75247
marieluise.beck@fu-berlin.de, lars.gerhold@fu-berlin.de



Balancing the interests in the context of data retention (INVODAS)

Motivation

The aim of INVODAS is to illustrate how freedom and security can best be brought into balance in the case of the retention of telecommunications traffic data. The EU directive on data retention specifies a framework for implementation in all EU member states, but leaves scope for individual design by each nation.

Goals and strategies

With this in mind, the Federal Constitutional Court, in its decision on data retention of the 2nd March 2010, has called for adequate legislative embodiment. INVODAS analyses requirements for harmonization in compliance with the constitution, and develops recommendations for design. An empirical basis for this is formed, among other things, by the solutions which other member states have found or strive to achieve in implementing the policy.

Innovations and perspectives

The results of this project will be used to generate recommendations that provide orientation for public debate concerning security culture and architecture, and can be applied to other comparable issues such as retention of data about airline passengers or financial transactions. The information and recommendations address both legislation and federal administration, as well as providers of telecommunications services and, finally, public debate on security and freedom of citizens in Germany. As part of a workshop, they will be made available to representatives of all three groups for discussion.



The balance between freedom and civil security is of central importance to retention of telecommunications traffic data (source: © iStockphoto.com/acilo)

Announcement

Social Dimensions of Security Research

Project title

Balancing the interests in the context of data retention (INVODAS)

Duration

05/2010 - 10/2011

Project partners

- University of Kassel, project group Constitutionally Compatible Technology Design (provet)
- Institut für Europäisches Medienrecht, Saarbrücken

Project coordinator

Prof. Dr. Alexander Roßnagel
University of Kassel
Project group Constitutionally Compatible Technology Design (provet)
Wilhelmshöher Allee 64-66
34121 Kassel
Phone: +49 561 804-3130
a.rossnagel@uni-kassel.de



Crisis prevention

Motivation

Crises in civil security are not always caused by local factors. Often the cause is a disaster or conflict at the international level which has repercussions on European countries. The terrorist attack on 11 September 2001 is such an example.

Goals and strategies

Therefore, prevention of crises and civil conflict resolution are gaining increasing importance in Germany. Against this background, the project's intention is to fundamentally evaluate methods as well as fields of application for civilian conflict resolution, and study them using the example of Afghanistan. The project aims to show how conflicts can be de-escalated through prevention and early civil intervention. Since violent conflicts impede sustainable development in the long term, successful interventions can also be expected to produce economic benefits.

Innovations and perspectives

The crisis prevention project evaluates key instruments of civil conflict prevention and resolution, thereby making an important contribution to the understanding of social conflicts and possible measures for early prevention. Through regular publications and lectures, the results are made available to a broad audience from both academia and the industry. To date, examples of topics include: Security concepts in international debate, conflict early-warning systems, inclusion of gender dimensions into conflict analyses and strategies in Afghanistan policy.



The sooner the causes of conflict are identified, the more effectively they can be managed (source: © iStockphoto.com/geopaul)

Announcement

Social Dimensions of Security Research

Project title

Crisis prevention

Duration

05/2009 - 04/2012

Project partner

• Freie Universität Berlin

Projektkoordinator

Prof. Dr. Hermann Kreutzmann
Freie Universität Berlin Institute of Geographical Sciences
Human Geography
Malteserstr. 74-100 - Raum K 184
12249 Berlin
Phone: +49 30 838-70224
Fax: +49 30 838-70757
h.kreutzmann@fu-berlin.de

Contact

PD Dr. Gabriele Zdunek
Lilienthalstr. 18
10965 Berlin
Phone: +49 30 693-5513
zdunek@zedat.fu-berlin.de



Cooperative security policy in the city (KoSiPol)

Motivation

The organization of security in municipalities has undergone substantial changes in the last 20 years. Increasingly complex security issues, the involvement of partners for effective prevention and raised feelings of insecurity among the populace require new, community-oriented security concepts.

Goals and strategies

The aim of the KoSiPol project is scientific analysis of these security concepts and their development for the purposes of improving municipal security. The starting point is a qualitative survey of the diversity of local security cooperations and their analysis from a sociological-criminological perspective. For this purpose, security collaborations in areas of activity associated with public security at the local level, e.g. “youth as perpetrators and victims”, “domestic violence”, “addiction and drugs”, and “police presence” are to be examined in a total of 16 cities. These case studies will serve as the basis for establishing the framework conditions for new co-operative security structures and evaluating them in terms of their effect, compliance with citizens’ security needs, and acceptance.

Innovations and perspectives

The new solutions will be incorporated into the vocational training of municipal employees and police recruits. Moreover, the results will be prepared in a practical manner, allowing them to be relayed to local authorities and other participants of relevance to local security.



Community-oriented security concepts play a major role in improving civil security (source: Innenministerium NRW)

Announcement

Social Dimensions of Security Research

Project title

Cooperative security policy in the city (KoSiPol)

Duration

05/2010 - 04/2012

Project partners

- University of Münster, Institut für Politikwissenschaften
- Europäisches Zentrum für Kriminalprävention e. V., Münster

Project coordinator

PD Dr. Bernhard Frevel
University of Münster
Institut für Politikwissenschaften
Scharnhorststr. 100
48151 Münster
Phone: +49 251 28590
bernhard.frevel@fhoev.nrw.de



Technical prevention of low-cost-terrorism (LoCo)

Motivation

Coming to light repeatedly since “9-11” have been incidents of, and plans for, terrorist attacks in which easily procurable, low-cost resources were, or would have been, sufficient to hit vulnerable points of civil infrastructure in Western European countries.

Goals and strategies

The aim of the LoCo Project is to adapt threat analyses to “low-cost terrorism” scenarios and issue recommendations for situation-specific as well as technological prevention measures. For this purpose, a survey of low-cost attacks and attempts in Western Europe will first be performed in association with international experts on terrorism. A cost-benefit analysis based on the mindset of perpetrator groups, which will help to produce better estimates of the probability of such scenarios occurring, will also be of help here. To understand the mindsets and dynamics of the different groups of perpetrators, practice-oriented, social-scientific experiments will be conducted as part of the project. The results will serve as a basis for detecting possible generalisable indicators that influence terrorists’ target selection.

Innovations and perspectives

The findings should lead to concepts for situation-specific and technological prevention measures, the deployment of which will increase the security of the populace, particularly as concerns use of civil infrastructures. Ultimately, the concepts will be made available to state institutions, operators of infrastructure facilities, sociologists, criminologists and terrorism researchers, in the form of recommendations for prevention.



Innovative technologies and preventive measures allow for safe arrival at a destination (source: © iStockphoto.com/DNY59)

Announcement

Social Dimensions of Security Research

Project title

Technical prevention of low-cost-terrorism (LoCo)

Duration

08/2010 - 07/2013

Project partner

- Institut für Sicherheits- und Präventionsforschung, Hamburg

Project coordinator

Dr. Daniela Klimke
Institut für Sicherheits- und Präventionsforschung
Von-Melle-Park 5
20146 Hamburg
Phone: +49 40 42838-5305
isip@uni-hamburg.de



Pattern recognition and video tracking: Social-psychological, sociological, ethical and legal analyses (MuViT)

Motivation

In the wake of violent incidents at railway and subway stations, such as those occurring in Munich, calls for necessary measures have included those for more intensive video surveillance, as is often the case after such incidents. However, video surveillance becomes more effective not simply through a greater number of images per se, but through faster and better evaluation of these images. Techniques for automatic pattern recognition and the implementation of video tracking offer the potential to effectively assist security personnel in this task. At the same time, such “intelligent” video systems raise social and legal issues which must be resolved in the course of technological development.

Goals and strategies

Applications of technical possibilities, in this case pattern recognition, are to be examined in the context of fundamental values such as liberty, security, human dignity and privacy. Possible issues of debate are anticipated and introduced into the technological development process against a background of sociological, psychological, ethical and legal findings and requirements. Project MuViT accompanies several other projects for the development of security solutions for pattern recognition and video tracking.

Innovations and perspectives

The innovative nature of project MuViT lies in the provision of solutions and development of criteria to determine how, at which locations, and under which conditions, pattern recognition systems can fulfil social, ethical and legal requirements. As one result, the associated project partners will develop recommendations in the form of a common catalogue of criteria.



During technical development of pattern recognition systems, it is important to resolve legal and ethical issues (source: University of Tübingen)

Announcement

Social Dimensions of Security Research

Project title

Pattern recognition and video tracking: Socio-psychological, sociological, ethical and legal analyses (MuViT)

Duration

05/2010 - 04/2013

Project partners

- University of Tübingen, International Centre for Ethics in the Sciences and Humanities (IZEW)
- University of Potsdam, Department of Economic and Social Sciences
- University of Würzburg, Lehrstuhl für Öffentliches Recht, Deutsches, Europäisches und Internationales Steuerrecht
- University of Freiburg, Institut für Öffentliches Recht
- University of Würzburg, Lehrstuhl für Psychologie II

Project coordinator

Prof. Dr. Regina Ammicht Quinn
University of Tübingen
International Centre for Ethics in the Sciences and Humanities (IZEW)
Wilhelmstr. 19, 72074 Tübingen

Contact

Andreas Wolkenstein, M.A.
Phone: +49 707129-77517 or -77988
andreas.wolkenstein@izew.uni-tuebingen.de



Networks against school shootings (NETWASS)

Motivation

School shootings are devastating and upset the sense of security of large parts of the population. Concepts for preventing violence and dealing with threats must be developed to optimise the security situation in schools and the school staff's sovereignty of action.

Goals and strategies

This project is meant to identify risk factors, key indicators of serious acts of violence such as school shootings, and criteria for classifying the credibility of leaking. In this context, leaking refers to hints of envisioned acts or plans disclosed in advance by a potential perpetrator. This provides a basis for preventive intervention. The aim of the project is to raise awareness among relevant professional groups and enable them to identify conspicuous children and youths at an early stage. For this purpose, school staff will be trained to assess threats in interdisciplinary teams and manage these threats in cooperation with a network of experts.

Innovations and perspectives

The project is being implemented at 120 schools in three federal states. The expected results of the project will help evaluate the credibility of threats of violence realistically, identify critical developments in pupils in time to provide them with the necessary assistance and, through training, to provide teachers with guidelines and directives that enable them to reliably recognise threats and initiate appropriate measures. Results obtained during the pilot phase at three Berlin schools point in the directions expected.



The threat of violence alone can have devastating consequences for a school (source: © iStockphoto.com / Rhoberazzi)

Announcement

Social Dimensions of Security Research

Project title

Network against school shootings (NETWASS)

Duration

10/2009 - 09/2012

Project partners

- Freie Universität Berlin, Department of Educational Science and Psychology
- Institut für angewandte Sicherheitsforschung (InaS), An-Institut der Fachhochschule der Polizei des Landes Brandenburg (FHPolBB) in der Rechsträgerschaft des Fördervereins der FHPolBB e.V. (im Unterauftrag), Oranienburg

Project coordinator

Prof. Dr. Herbert Scheithauer
Freie Universität Berlin
Department of Educational Science and Psychology
Habelschwerdter Allee 45
14195 Berlin
Phone: +49 30 838-56546
herbert.scheithauer@fu-berlin.de



Coordination, steering and standardisation in the German disaster management system under large-scale emergency conditions (Pri-Kats)

Motivation

The German internal security system consists predominantly of the police, intelligence services and, increasingly important, the private security industry. Previously, considerations of this system were highly segmented. With the threat of international terrorism as well as climate change, however, the complex disaster management network in the German Federal Republic is attracting more and more public interest.

Goals and strategies

The project titled Pri-Kats has two points of focus: One is to examine cooperation between, and coordination of, agencies and organizations at the federal, state and municipal levels in the event of large-scale, cross-border incidents. The second is to examine different legal standards. Analysed here, in particular, are the methods and standards according to which priorities for rescue measures should be defined and implemented.

Innovations and perspectives

The project also deals with issues of civil security architecture: How does emergency management develop into an integrated concept of internal security? The basis for this is provided by organizational analyses of authorities and establishments charged with security tasks. The project is to help develop appropriate structures, decision-making processes and content-related strategies in order to improve disaster prevention measures. Investigations so far reveal that Germany's present, federally structured system for civil protection is generally capable of action.



Assistants at a major incident (source: THW)

Announcement

Rescue and Protection of People

Project title

Coordination, steering and standardisation in the German disaster management system under large-scale emergency conditions (Pri-Kats)

Duration

04/2009 - 03/2012

Project partners

- Private Universität Witten/Herdecke, Fakultät für Kulturreflexion, Lehrstuhl für Politikwissenschaften, Sicherheitsforschung und Sicherheitsmanagement
- Bielefeld University, Faculty of Law, Lehrstuhl Öffentliches Recht, Staatslehre und Verfassungsgeschichte

Project coordinator

Prof. Dr. Hans-Jürgen Lange
Private University of Witten/Herdecke, Faculty of Culture,
Chair of Political Science, Security Research and Security
Management
Alfred-Herrhausen-Straße 50
58448 Witten
Phone: +49 2302 926-809
Hans-Juergen.Lange@uni-wh.de



Security legislation (SiGG)

Motivation

With regard to policies intended for civil security, there is broad debate about the need for governmental powers of intervention. This is especially true for the question as to how new threats such as organized crime and international terrorism can be adequately addressed. The executive branch plays a crucial role in formulating security legislation. This role should be realized by participants in a manner which maintains the delicate balance between freedom and security. However, the instruments and solutions most suitable for this purpose are not always obvious.

Goals and strategies

The SiGG project's intention is to analyse the theoretical aspects of the relationship between the executive and judicial branches and introduce them as subjects to scientific discussion. The project also aims to analyse the various challenges that may arise when deciders responsible for security have an influence on related legislation. The basis for this is provided by analyses of the three areas of legislation dealing respectively with video surveillance, telecommunication monitoring and biometric control systems.

Innovations and perspectives

As the outcome of the project, legislative processes concerning security are to be depicted in a differentiated manner, besides addressing fundamental issues of government legitimacy, rule of law, democratic participation and control as well as developing concepts for solutions.



In the case of measures for internal security, it is important to maintain the balance between freedom and security
(source: © iStockphoto.com/no_limit_pictures)

Announcement

Social Dimensions of Security Research

Project title

Security legislation (SiGG)

Duration

07/2010 - 06/2013

Project partners

- Bielefeld University
- Witten/Herdecke University

Project coordinator

Prof. Dr. Christoph Gusy
University of Bielefeld
Faculty of Law
Chair of Public Law, Political Science and Constitutional History
Universitätsstr. 25
33615 Bielefeld
Phone: +49 5211064-397
christoph.gusy@uni-bielefeld.de



Emergency communication for security: Preventive, proactive and reactive strategies for communications support (SiKomm)

Motivation

Communication is seen as an important factor for security in disaster situations. Measures for the protection and rescue of people must be prepared, coordinated and subsequently reviewed by means of processes of communication. Mutual understanding across all levels plays a central role in security communications.

Goals and strategies

The communication processes of various participants, including affected persons, rescue and emergency services, as well as crisis management groups and the media, are identified across scenarios, and to be examined with the aim of creating general communication strategies. Analyses of reports on selected scenarios, such as collapse of infrastructure, natural disasters and terrorism are accompanied by a use of time-geographical methods such as participant observations of crisis-related exercises. Comprehensive crisis communications and management systems are tested for the purpose of supporting security communications by means of ICT solutions. This is to enable testing of robust means of communication and media-based intervention across all levels. Particular attention is paid to the ethical aspects of security communications.

Innovations and perspectives

Dynamic models of crisis systems and anticipatory crisis intervention strategies represent a fundamental prerequisite for preventive and reactive communication measures. Security communication itself considered a means of protection and rescue, is suitable for strengthening self-organization and restructuring processes, as well as promoting civil resilience in the event of crisis.



Communications between emergency services (source: SiKomm)

Announcement

Rescue and Protection of People

Project title

Emergency communication for security: Preventive, proactive and reactive strategies for communications support in security and rescue operations (SiKomm)

Duration

02/2009 - 01/2012

Project coordinator

Prof. Dr. Gebhard Rusch
University of Siegen
Institute of Media Research (IfM)
Adolf-Reichwein Str. 2
57068 Siegen
Phone: +49 271 740-4289
Fax: +49 271 740-2533
info@sikomm.org
Phone: +49 521 1064-397
christoph.gusy@uni-bielefeld.de



Security in public spaces (SIRA)

Motivation

Not limited to technical advances, innovation in civil security must primarily take into account the human perspective. International studies show large differences in the social acceptance of security measures. This is where the SIRA research project will start from by asking which factors influence acceptance or rejection of security measures.

Goals and strategies

The SIRA Project is to assess measures at security checkpoints in air passenger transport, as well as investigate the acquisition and storage of personal data to improve security. Individual experience, a personal sense of justice, and socio-cultural factors play a role in determining the acceptance of security measures. The SIRA project will also investigate technological effects. The aim is to identify all relevant factors and to prepare guidelines for the optimisation of security measures in terms of social acceptance.

Innovations and perspectives

For this purpose, the project partners are developing a scientific model for the acceptance of security measures. Personal perceptions, for instance of air travellers at security checkpoints, are registered in interviews, and are applied to the model. This serves as a basis for developing an evaluation methodology which makes it possible to assess the acceptance of security measures. Also taken into account is data protection, as well as the role of public figures as potential role models. From a legal perspective, the project examines requirements arising from personal rights and measures to ensure air traffic security and will prepare proposals for appropriate solutions.



Example of a security check (source: © iStockphoto.com/xyno)

Announcement

Social Dimensions of Security Research

Project title

Security in public spaces (SIRA)

Duration

08/2010 - 07/2013

Project partners

- Universität Hamburg, Institut für Volkskunde/Kultur-anthropologie
- Technische Universität Darmstadt, Department of Public Law (FÖR)
- European Center for Aviation Development – ECAD GmbH, Darmstadt
- Fraunhofer Institutes ISI and IOSB, Karlsruhe
- Universität der Bundeswehr München, Institut für Politikwissenschaften, Institut für Soziologie und Volkswirtschaftslehre, Neubiberg

Project coordinator

Prof. Dr. Carlo Masala
University of the German Armed Forces, Institute for Political Science
Werner-Heisenberg-Weg 39, 85577 Neubiberg
Phone: +49 89 6004-2044, carlo.masala@unibw.de



The transformation of security culture (SiW)

Motivation

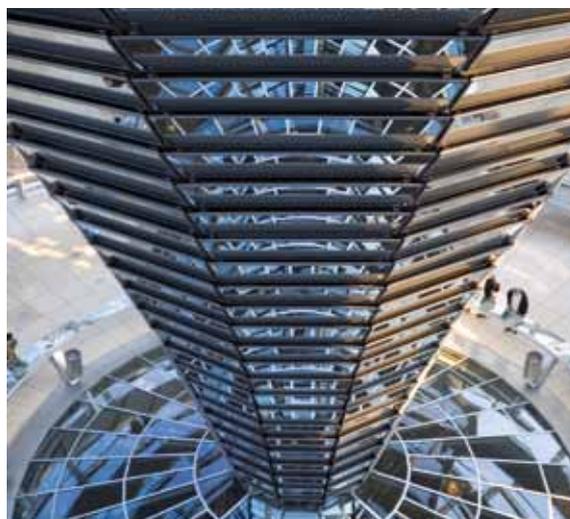
Civil security has become a core value of our modern democratic society. An awareness of transitions in security culture is needed to increase the understanding of the chances and limitations of security policies implemented in society in order to enhance state institutions' capacity to act. Security culture encompasses ideas, norms and practices of individuals as well as organizations responsible for defining threats and deciding about counter measurements.

Goals and strategies

This research project examines changes in security culture in relation to continuous developments in the understanding of security and expansions in the state's implementation of security policies over the last fifty years. Four case studies covering the areas of "pandemics and health risks," "terrorism," "energy security" and "human rights" observe the effects on German security policy and analyse changes in security concepts. Also investigated is the way that security communication takes place in information societies, and which obstacles must be overcome in this process. Furthermore, an Internet platform is to promote social discourse on civil security.

Innovations and perspectives

The research project aims at registering transitions in security culture and identifies the causes and consequences of such transitions. Successful problem-solving options and communication strategies will be worked out in dialogue with experts, social interest groups and policy makers.



Civil security is a core value of our society
(source: @iStockphoto.com/m-1975)

Announcement

Social Dimensions of Security Research

Project title

The transformation of security culture (SiW)

Duration

06/2010 - 05/2013

Project partner

- Frankfurt University, Chair of International Organizations and Public Policy

Project coordinator

Prof. Dr. Christopher Daase
Frankfurt University, Chair of International Organizations and Public Policy
Exzellenz-Cluster „Normative Ordnungen“
Senckenberganlage 31
60323 Frankfurt am Main
Phone: +49 69 798-22771
Christopher.Daase@normativeorders.net



Terrorism and radicalisation – Indicators for the impact of external factors (TERAS-INDEX)

Motivation

The joint project TERAS-INDEX deals with the consequences of foreign and security policies. The focus lies on the question of whether, and to what extent, external conflicts and Germany's foreign policy have repercussions on processes of Islamic radicalisation in Germany.

Goals and strategies

To clarify these issues, the TERAS-INDEX project uses a variety of methods. These range from comparative analyses of foreign and security policy measures, which have impact on the process of radicalisation and the potential for jihadi-Islamic terrorism in Germany and five other European countries, through empirical investigations of the influence of external conflicts on variously radicalised social milieus, to the development of instruments for registering repercussions. These analyses will be used to develop early indicators of Islamic radicalisation processes in Germany. Extensive media research is also to be conducted, the results of which are to be entered into a new project database. This research database is of particular importance to scientists engaged in the field of terrorism research, as well as institutions in charge of internal security.

Innovations and perspectives

The findings obtained will be used to derive recommendations for action, and made available to decision makers. Other users may include internal security authorities such as the police and municipalities, for whom the project results would provide indications of the potential for radicalisation.



The project is aimed at assessing the consequences of security policies (source: © iStockphoto.com/track5)

Announcement

Social Dimensions of Security Research

Project title

Terrorism and radicalisation – indicators for the impact of external factors (TERAS-INDEX)

Duration

07/2010 - 06/2013

Project partners

- Institute for Peace Research and Security Policy at the University of Hamburg (IFSH)
- Bonn International Centre for Conversion (BICC) GmbH

Associate partner

- State Office of Criminal Investigation, Hamburg

Project coordinator

Matenia Sirseldoudi

Institute for Peace Research and Security Policy at the University of Hamburg (IFSH)

Beim Schlump 83

20144 Hamburg

Phone: +49 40 8660-7710

sirseldoudi@ifsh.de



Terahertz detection systems: Ethical support, evaluation and standardization (THEBEN)

Motivation

Within the framework of security ethics, the THEBEN project deals with the development and implementation of security technologies, especially body scanners. Such scanners render visible not just dangerous objects concealed around the body, but also body contours.

Goals and strategies

The THEBEN project deals with the balance between security and privacy. For this purpose, five research groups were accompanied during the development of body scanners, the acceptance of the developed systems was examined, and ethical challenges and solutions were pointed out. The project specifically deals with ethically relevant aspects of technical design, implementation contexts, and groups of people affected in different ways. Defined development and application guidelines were prepared, and relationships between social concepts of security and technology were analysed. Also considered were the need for non-discriminatory alternatives and the abstraction of the images generated. In this process, it is noted that abstractions of bodies, which do not meet expected norms, for example in the case of hidden disabilities, does not solve all ethical problems.

Innovations and perspectives

The project has resulted in recommendations concerning ethical evaluation of security technologies. This serves as orientation for social discourse as well as research policies, developers and users. Also prepared is a report titled "The influence of security technology on the mobility of people with disabilities in the context of airport security, using the body scanner as an example".

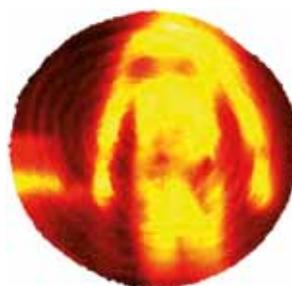


Image of a person recorded using a THz scanner (source: Theben)

Announcement

Detection of Hazardous Substances

Project title

Terahertz detection systems: Ethical support, evaluation and standardization (THEBEN)

Duration

05/2009 - 04/2012

Project manager

Prof. Dr. Regina Ammicht Quinn
International Centre for Ethics in the Sciences and Humanities (IEZW)
University of Tübingen
Wilhelmstraße 19
72074 Tübingen
Phone: +49 7071-2977988
regina.ammicht-quinn@uni-tuebingen.de

Project coordinator

Benjamin Rampp, M.A.
International Centre for Ethics in the Sciences and Humanities (IEZW)
University of Tübingen
Wilhelmstraße 19
72074 Tübingen
Phone: +49 707129-77517
benjamin.rampp@uni-tuebingen.de
theben@izew.uni-tuebingen.de

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